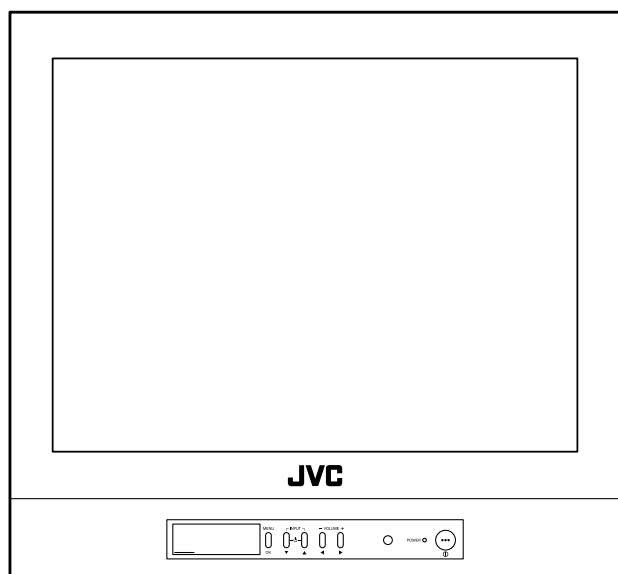


## COLOR VIDEO MONITOR

# TM-21A2U

## INSTRUCTIONS

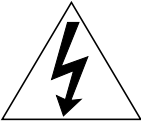

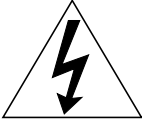



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LCT2089-001A-H

# Important Safety Precautions

	<b>CAUTION</b> <b>RISK OF ELECTRICAL SHOCK</b> <b>DO NOT OPEN</b>	
<b>CAUTION:</b> To reduce the risk of electric shock. Do not remove cover (or back). No user serviceable parts inside. Refer servicing to qualified service personnel.		
	The lightning flash with arrowhead symbol, within an equilateral triangle is intended to alert the user to the presence of uninsulated “dangerous voltage” within the product’s enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.	
	The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.	

**WARNING:** TO PREVENT FIRE OR SHOCK HAZARDS, DO NOT EXPOSE THIS MONITOR TO RAIN OR MOISTURE.

**CAUTION:** TO INSURE PERSONAL SAFETY, OBSERVE THE FOLLOWING RULES REGARDING THE USE OF THIS UNIT.

1. Operate only from the power source specified on the unit.
2. Avoid damaging the AC plug and power cord.
3. Avoid Improper installation and never position the unit where good ventilation is unattainable.
4. Do not allow objects or liquid into the cabinet openings.
5. In the event of trouble, unplug the unit and call a service technician. Do not attempt to repair it yourself or remove the rear cover.

Changes or modifications not approved by JVC could void the warranty.

- When you don't use this monitor for a long period of time, be sure to disconnect the power plug from the AC outlet for your safety.
- To prevent electric shock do not use this polarized plug with an extension cord, receptacle or other outlet unless the blades can be fully inserted to prevent blade exposure.

## IMPORTANT RECYCLING INFORMATION

This product utilizes both a Cathode Ray Tube (CRT) and other components that contain lead. Disposal of these materials may be regulated in your community due to environmental considerations. For disposal or recycling information, please contact your local authorities, or the Electronic Industries Alliance: <http://www.eiae.org>

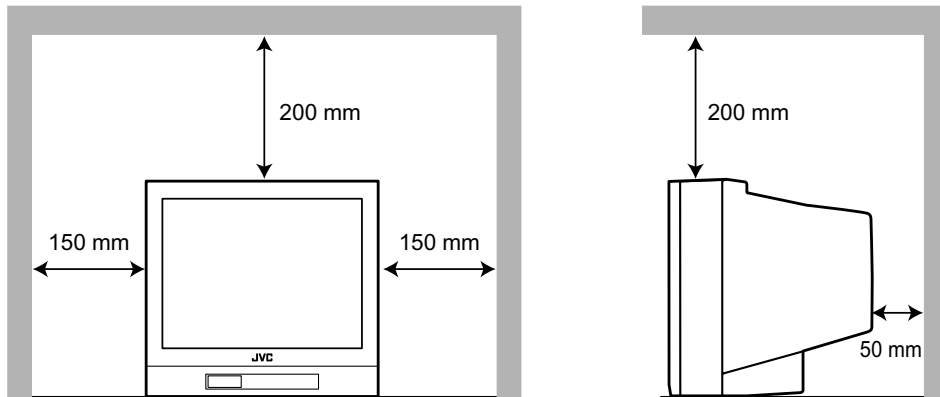
# IMPORTANT SAFETY INSTRUCTIONS

- 1) Read these instructions.
- 2) Keep these instructions.
- 3) Heed all warnings.
- 4) Follow all instructions.
- 5) Do not use this apparatus near water.
- 6) Clean only with dry cloth.
- 7) Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
- 8) Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- 9) Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- 10) Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
- 11) Only use attachments/accessories specified by the manufacturer.
- 12) Use only with a cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.



- 13) Unplug this apparatus during lightning storms or when unused for long periods of time.
- 14) Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
- 15) Apparatus shall not be exposed to dripping or splashing and no objects filled with liquids, such as vases, shall be placed on the apparatus.

- 16) Avoid improper installation and never position the unit where good ventilation is impossible. When installing this monitor, distance recommendations must be maintained between this monitor and the wall, as well as inside a tightly enclosed area or piece of furniture. Keep to the minimum distance guidelines shown for safe operation.



### 17) Cautions for installation

- Do not tilt this monitor towards the left or right, or towards the back.
- Install this monitor in a corner on the floor so as to keep cords out of the way.
- This monitor will generate a slight amount of heat during operation. Ensure that sufficient space is available around this monitor to allow satisfactory cooling.

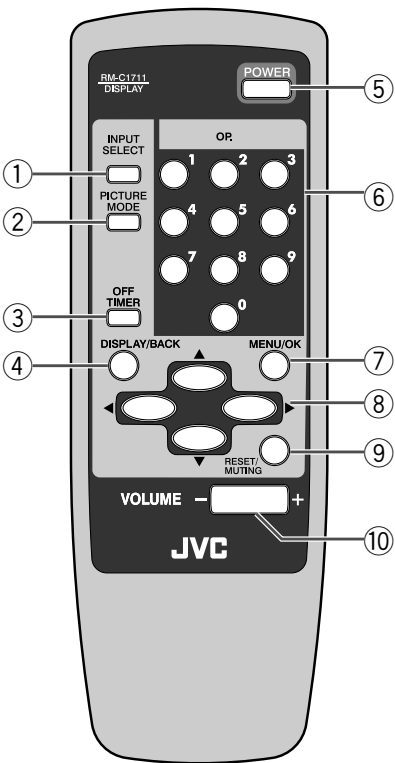
- 18) The main power supply for this monitor is controlled by the ① (main power) button on the front panel. Pressing the ① button turns the power on, and pressing it again shuts the power off completely.

### FCC Notice:

**Note:** This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

# Buttons and basic functions—Remote control



No.	Press	To
①	INPUT SELECT	Select the input. • Pressing this button turns on the monitor from standby mode. (You cannot turn off the monitor with this button.)
②	PICTURE MODE	Select the picture mode (see page 8).
③	OFF TIMER	Set the off-timer (see page 9).
④	DISPLAY/BACK	Displays the current input name. While operating the menu, you can use this button to return to the previous menu.
⑤	POWER	Turn on or off the monitor from standby mode.
⑥	0 – 9	These buttons are only for maintenance or repair by the service technician.
⑦	MENU/OK	Display menu and confirm selected function.
⑧	▲/▼/◀/▶	Select and adjust menu function.
⑨	RESET/MUTING	Reset the picture setting while the PICTURE SETTING menu is displayed (see page 8). In other cases, pressing this button turns off the volume. Press this button again to resume the volume.
⑩	VOLUME +/-	Adjust the volume level.

## Inserting batteries into the remote control

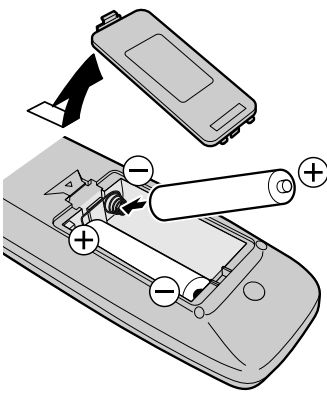
Insert two batteries by matching the ⊕ and ⊖ polarities and inserting the ⊖ end first.

### CAUTION:

Follow the cautions printed on the batteries.

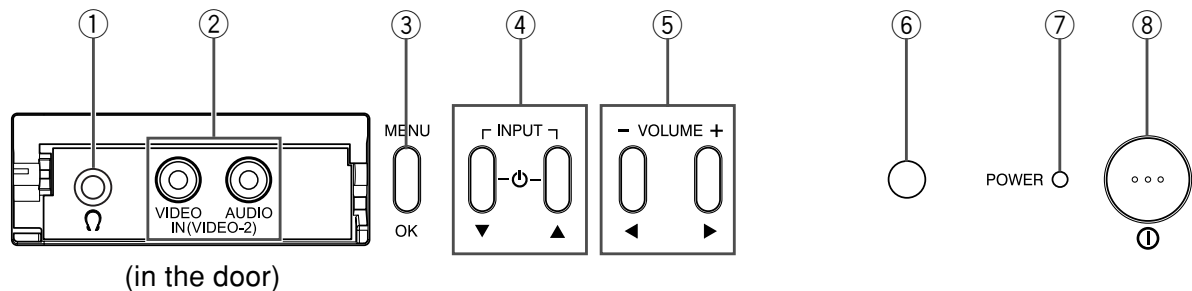
### Notes:

- Use AA/R6/UM-3 dry cell batteries.
- If the remote control does not work properly, fit new batteries.  
The supplied batteries are for testing, not regular use.

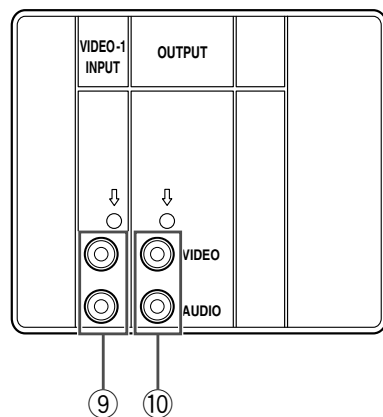


# Buttons and basic functions—Main unit

## Front Panel



## Rear Panel



No.	Button/terminal	Description
①	Ω	Headphone jack.
②	IN (VIDEO-2)	Video and audio input jacks for VIDEO-2 mode.
③	MENU / OK	Press to display menu and confirm selected function.
④	INPUT	Press either button to select the desired input.
	⏻	Press either button to turn on the monitor from standby mode. (You cannot turn off the monitor with these buttons.)
	▼ ▲	Press to select the desired menu item during menu operations.
⑤	VOLUME +/-	Press to adjust the volume level.
	◀ ▶	Press to adjust the selected item during menu operations.
⑥	Remote control sensor	
⑦	Power lamp	Indicates whether the monitor is turned on or off. No color : monitor's main power is turned off. Red : monitor's main power is turned on.
⑧	① (main power)	Press to turn on or turn off the monitor's main power.
⑨	VIDEO-1 INPUT	Video and audio input jacks for VIDEO-1 mode.
⑩	OUTPUT	Video and audio output jacks.

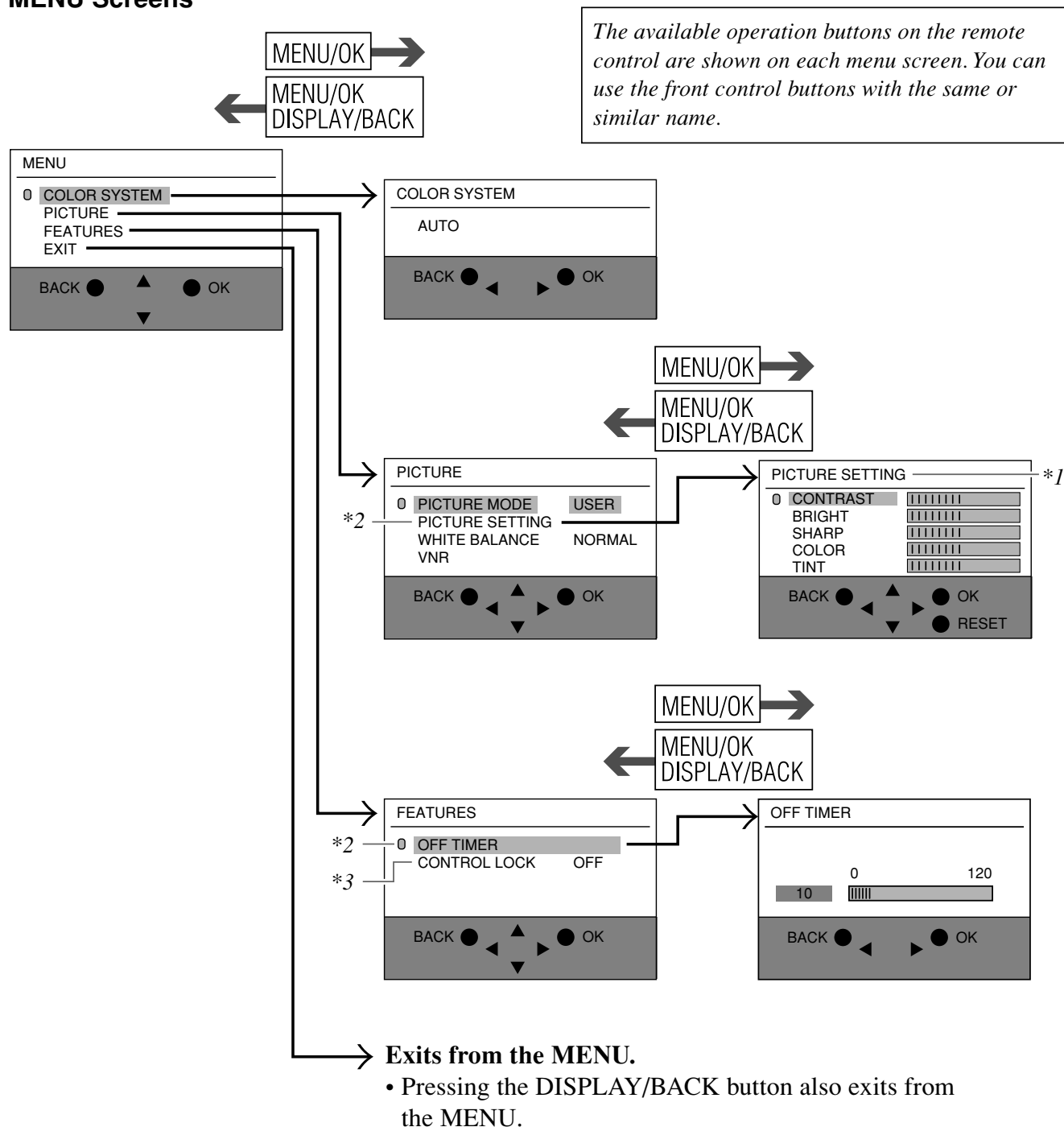
# How to operate menus

To display the MENU, press the MENU/OK button.

To select an item, press the ▲/▼ buttons.

To adjust the selected item, press the ◀/▶ buttons.

## MENU Screens



\*1 If you want to adjust PICTURE SETTING menu, set PICTURE MODE to USER.

\*2 To go back to MENU:

– Select another item, then press the MENU/OK button.

– Press the DISPLAY/BACK button on the remote control.

\*3 When CONTROL LOCK is set to ON, you cannot use the front control buttons. Use the remote control for further operations.

# Basic setting for picture

## COLOR SYSTEM

You can select the appropriate color system when the picture is not clear or no color appears. Select COLOR SYSTEM, then choose the desired setting.

※ MENU → COLOR SYSTEM

AUTO	Color system changes automatically according to the current input.
PAL	For PAL system.
SECAM	For SECAM system.
NTSC 3.58	For NTSC 3.58 MHz system.
NTSC 4.43	For NTSC 4.43 MHz system.

## PICTURE MODE

You can choose the desired picture setting with one-touch.  
Press the PICTURE MODE button to select a setting.

SOFT	Softens contrast and sharpness.
BRIGHT	Heightens contrast and sharpness.
STANDARD	Standard picture setting.
USER	You can change this picture setting as you like. Select USER and adjust items in the PICTURE SETTING menu (see the right column).

To operate this function with a menu:

※ MENU → PICTURE → PICTURE MODE

## Adjusting the picture—USER

You can adjust the desired picture setting when selecting USER in PICTURE MODE.

### 1 Select USER in PICTURE MODE under PICTURE menu.

※ MENU → PICTURE → PICTURE MODE  
→ USER

### 2 Select PICTURE SETTING in the PICTURE menu, then adjust the setting.

※ MENU → PICTURE → PICTURE SETTING

CONTRAST	◀: Lower contrast	▶: Higher contrast
BRIGHT	◀: Darker	▶: Brighter
SHARP	◀: Softer	▶: Higher
COLOR	◀: Lighter	▶: Deeper
TINT*	◀: Reddish	▶: Greenish

\* TINT can only be adjusted in NTSC system.

To return the USER setting to the default, press the RESET/MUTING button when the PICTURE SETTING menu appears.

## WHITE BALANCE

You can change the white balance of the picture to better match the type of video being viewed. Select WHITE BALANCE in the PICTURE menu, then choose the desired setting.

※ MENU → PICTURE → WHITE BALANCE

NORMAL	Normal white balance.
COOL	Bluish white.
WARM	Reddish white.

※ For the basic operations of the menu, please see “How to operate menus” on page 7.



# Customized setting

## VNR

You can reduce the noise.  
Select VNR in the PICTURE menu, then choose a desired setting.

\* MENU → PICTURE → VNR

OFF	VNR is turned off.
AUTO	Effect of VNR is automatically controlled.
MIN	Effect of VNR becomes minimum level.
MAX	Effect of VNR becomes maximum level.

If you select MAX, the picture becomes softer even if the original picture is sharp.

## OFF TIMER

You can set the monitor to turn off automatically to standby mode after a set time.  
Press the OFF TIMER button to select a desired period of time.



You can set the period of time to a maximum of 120 minutes in 10 minute steps.

To operate this function with a menu:

\* MENU → FEATURES → OFF TIMER

One minute before the monitor turns off, "GOOD NIGHT!" appears on the screen.  
You can display the OFF TIMER menu again to confirm or change the remaining time.

## CONTROL LOCK


You can disable the front control buttons of the monitor except the ① (main power) button.  
Select CONTROL LOCK in the FEATURES menu, then choose ON or OFF.

\* MENU → FEATURES → CONTROL LOCK

\* For the basic operations of the menu, please see "How to operate menus" on page 7.

# Troubleshooting

Solutions to common problems related to your monitor are described here. If none of the solutions presented here solve the problem, unplug the monitor and consult a JVC-authorized dealer or service center for assistance.

No picture	<ul style="list-style-type: none"><li>• Connect the signal cable firmly.</li><li>• Turn on the power of the connected component and set the output correctly.</li></ul>
Stripes appear on the picture	<ul style="list-style-type: none"><li>• Interference occurs caused by other devices such as an amplifier, personal computer, or a hair drier. Move such devices away from your monitor.</li></ul>
Poor picture quality	<ul style="list-style-type: none"><li>• Choose the appropriate color system. Refer to “COLOR SYSTEM” on page 8.</li><li>• Adjust the COLOR or BRIGHT setting. Refer to “Adjusting the picture—USER” on page 8.</li></ul>
White and bright still images look as if they were colored	<ul style="list-style-type: none"><li>• Inevitable phenomenon due to the nature of the picture tube. This is not a malfunction.</li></ul>
Top of the image from software products or video tape is distorted	<ul style="list-style-type: none"><li>• This is due to the condition of the video signal whereby the image was not recorded properly. This is not a malfunction.</li></ul>
Cannot operate the remote control	<ul style="list-style-type: none"><li>• The batteries may be exhausted. Replace with new batteries (see page 5).</li><li>• Ensure that you are operating the remote less than seven meters from the front of your monitor.</li></ul>
Cannot turn on the monitor by using the  button on the front panel	<ul style="list-style-type: none"><li>• The CONTROL LOCK function is turned on (see page 9). Turn on the monitor by using the remote control, then deactivate the CONTROL LOCK function.</li></ul>
Cannot operate the front control buttons	<ul style="list-style-type: none"><li>• Deactivate the CONTROL LOCK function if it is turned on (see page 9).</li></ul>
Color patches appear at the corner of the screen	<ul style="list-style-type: none"><li>• This may be due to a magnetized device such as a speaker near your monitor. Keep the device away from your monitor. Alternately, you can also use a magnetically-shielded speaker.</li></ul>
Image takes a short period to be displayed	<ul style="list-style-type: none"><li>• It takes time for the image to be displayed stably. This is not a malfunction.</li></ul>
Monitor emits crackling sound	<ul style="list-style-type: none"><li>• This is due to a sudden change in temperature and it is not a malfunction. If the crackling sound is too frequent, request your service technician for inspection.</li></ul>
Feel a slight electric shock when touching the monitor screen	<ul style="list-style-type: none"><li>• This is due to the static electricity of the picture tube and it will not harm the human body. This is not a malfunction.</li></ul>

# Specifications

Model	TM-21A2U
Type	Color Video Monitor
Picture Tube	21" measured diagonally
Effective Screen Size	Width: 404 mm (15 7/8") Height: 303 mm (11 7/8") Diagonal: 505 mm (19 7/8")
Scanning Frequency	H: 15 kHz V: 50 Hz/60 Hz
Input/Output Terminals	Composite signal input terminals VIDEO-1/VIDEO-2: 2 lines, RCA connector x 2 (1 Vp-p, 75 Ω) Composite signal output terminal OUTPUT: 1 line, RCA connector x 1 Analog audio input terminals VIDEO-1/VIDEO-2: 2 lines, RCA connector x 2 Analog audio output terminal OUTPUT: 1 line, RCA connector x 1 Headphone jack: stereo mini jack (3.5 mm (1/4") diameter, monaural)
Sound Output	3 W
Speaker	50 mm x 90 mm (2" x 3 5/8") x 1
Compliant Video Signal	PAL, SECAM, NTSC 3.58 MHz, NTSC 4.43 MHz
Environmental Conditions	Operating temperature: 0°C – 40°C (32°F – 104°F) Operating humidity: 20% – 80% (non-condensing)
Power Requirements	120 V AC, 50 Hz/60 Hz
Power Consumption	1.1 A/76 W (120 V AC)
Dimensions	Width: 502 mm (19 7/8") Height: 479.7 mm (19") Depth: 471.6 mm (18 5/8")
Weight	22 kg (48.4 lbs)

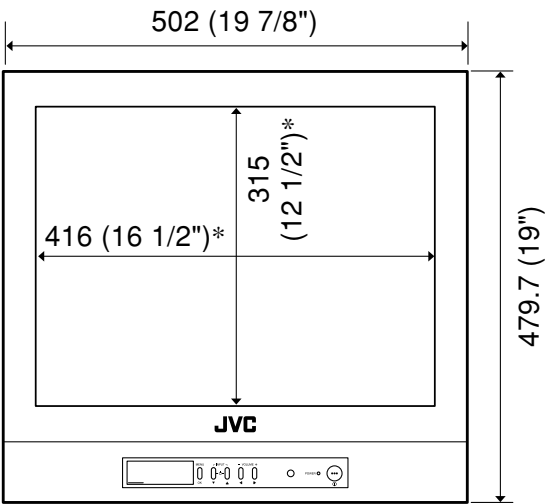
*\*Illustrations and pictures used in this manual have been exaggerated, abbreviated or compounded for explanatory purposes only. The appearance of the actual product may differ slightly.*

*\*Dimensions and weight are approximate.*

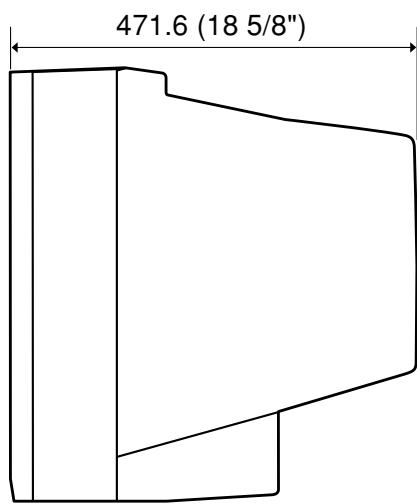
*\*E. & O.E. Design and specifications subject to change without notice.*

**Dimensions** Unit : mm (inch)

**Front View**



**Side View**



TM-21A2U COLOR VIDEO MONITOR

Asterisks (\*) are used to indicate front panel dimensions.

